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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/770,616

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Wolfgang Eis

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LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER

DEGHAN, QUEENIE S

ART UNIT

PAPER NUMBER

1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/770,616

Applicant(s)

EIS ET AL.

Examiner

Queenie Dehghan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 27-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I, claims 1-26, in the reply filed on December 28, 2006 is acknowledged. The grounds for the traversal were not presented. Therefore, the requirement is still deemed proper and is therefore made FINAL.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-7, 15, and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. It is unclear a to is meant by "different ones" in the last line of claim 7.

6. It is uncertain if the controllable excursion mechanism for the layer compensating device in claim 6 is the same as the controllable excursion mechanism in claim 4.

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7. Claims 15 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the intended use of the central data processing unit posed no specific structural limitations to the apparatus.

8. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: The intended use of the drawing installation pose not specific limitations on the structure of the apparatus.

9. Claims 23 and 24 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: how the spools are exchanged are method steps that fail to recite structural limitations on the apparatus.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3, 7-10, 14, 16-22m and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Fulk et al. (3,847,579). Regarding claims 1-2, Fulk et al. disclose a device for making a plurality of fibers comprising:

a. A multifiber drawing machine having a drawing installation configured for a drawing a plurality of fibers at a constant speed to form a bundle (col. 5 lines 15-36, figure 15, col. 1 lines 19-20),

b. And a take-up winder with a take-up spool and a compensating device capable of compensating differences in speeds between the drawing installation and the take-up spool (col. 5 lines 15-36, figure 15)

12. Regarding claim 3, Fulk et al. discloses a take-up winder with a fiber guiding unit (col. 7 lines 21-42).

13. Regarding claims 7-10, Fulk et al. further disclose the compensating device comprising a speed-change compensating device capable of compensating a change in speed in the fiber bundle due to a changing wound-up radius (col. 8 lines 26-44), wherein the speed compensating device has a dancing arm fastened at a mounting point, and a deflection roller that is rotatably fastened to one side of the dancing arm and is pivotable about the mounting point in a plane substantially parallel to a plane of

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rotation of the take-up spool (col. 9 lines 20-36, col. 10 lines 54-59). From figure 15, Fulk et al. disclose the deflection roller with an axis of rotation parallel to the axis of rotation of the take up spool. Fulk et al. further indicates oscillating the dancing arm in an upward and downward motion (col. 11 lines 15-20).

14. Regarding claim 14, Fulk et al. disclose an angular resolver, wherein the dancing arm is assigned to the angular resolver at the mounting point, and a speed controller connected to the angular resolver for controlling the rate of the take-up spool (col. 9 lines 50-65).

15. Regarding claims 16-21, Fulk et al. disclose a compensating force, such as a hydraulic cylinder, that is capable of adjusting the dancing arm to an equilibrium or neutral position and also capable of setting a tension in the fiber bundle (col. 11 lines 1-50, col. 12 lines 50-56, col. 3 lines 34-36).

16. Regarding claim 22, Fulk et al. disclose a take-up spool is fastened as an exchangeable take-up spool (col. 14 lines 25-27, 50-52).

17. Regarding claim 26, Fulk et al. disclose a drawing installation capable of producing a plurality of individual multicomponent fibers (figures 1, 2 & 15).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579), as applied to claim 3 above, in view of Collaro (2005/0126227). Fulk et al. disclose a fiber guiding unit with a controllable excursion mechanism (82) that acts on a fiber guide (88) for laying the fiber bundle on the spool (col. 7 lines 21-43). However, Fulk et al. fail to disclose a guiding roller. Collaro teaches a device for drawing and winding fiber onto a reel, comprising a guiding roller for guiding the fiber onto the reel ([0097], figure 4). Collaro also mentions that any other pulleys or guiding elements of another type may be used ([0099]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the guiding roller of Collaro in the fiber guiding unit of Fulk et al. because Collaro has demonstrated that it is known in the art to do so and because it would allow for smooth guiding means for the fiber.

21. Claims 5-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579) in view of Collaro (2005/0126227), as applied to claim 4

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above, in further view of Hendrix et al. (4,130,248). Regarding claims 5 and 6, although Fulk et al. and Collaro both disclose an excursion mechanism for traverse of the fiber guiding unit, they fail to disclose a layer compensating device. Hendrix et al. teach a take-up winder (42) comprising a layer-compensating device, which is capable of adapting to a winding condition based on a change in a wound-up radius on the spool. Furthermore, the layer compensating device has a controllable excursion mechanism capable of controlling traveling of the fiber guide in a direction radial with respect to the axis of rotation of the spool, based on the number of layers on the spool (col. 3 lines 48-64, col. 4 lines 7-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the layer compensating device with the excursion mechanism in the take-up winder of Fulk et al. and Collaro in order to allow for the fiber guiding unit to accommodate for an increase radius of the wound spool during winding operations.

22. Regarding claim 15, Fulk et al. disclose a central data processing unit (controller) capable of controlling the compensating device for differences in speeds (col. 9 lines 59-64).

23. Claims 10-13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579), as applied to claim 7 above, in view of Canfield (3,650,717). Fulk et al. disclose a speed-change compensating device with a dancing arm with a deflection roller, wherein the dancing arm is fastened at a mounting point, as mentioned above. Furthermore, Fulk et al. indicates oscillating the dancing arm in an upward and downward motion (col. 11 lines 15-20), but fail to disclose an elastic dancing arm.

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Canfield also teaches a speed-change compensating device (col. 7 lines 68-72), with a dancing arm (50) fastened at a mounting point (53) and a deflection roller rotatably mounted on the dancing arm and is pivotable about the mounting point in a plane parallel to the plane of rotation of the spool (coll. 3 lines 45-75). Furthermore, Canfield teaches in figures 1 and 3 a deflection roller and take-up spool with axes of rotation that are parallel to one another. Also, Canfield teaches a dancing arm that is elastic, with a long and thin shape, and plastic, allowing for the deflection roller to have oscillating capability with respect to the pivoting movement (col. 4 lines 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the variation in the a speed-change compensating device, especially the use of an elastic material, as suggested by Canfield in the apparatus of Fulk et al, in order to provide for proper tension on the fiber and a dancing arm that can withstand the strain due to the tension.

24. Claims 23-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fulk et al. (3,847,579). Fulk et al. disclose a take-up spool that is capable of being exchanged when full (col. 14 lines 25-27, 50-52). Furthermore, Fulk et al. indicate a replacement spool being mounted on the collet. It would have been obvious to one ordinary skill in the art at the time the invention was made to employ the desired method steps for exchanging out the spool with a replacement spool, as indicated by Fulk et al., especially since the spool is configured to be exchangeable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expect the spool to be located under the

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fiber guiding unit (regardless of the method steps employed for moving either the spool or guiding unit) in order for the winding of the fiber on the spool to occur. Furthermore, Fulk et al. disclose a central data processing unit (controller) capable of controlling the compensating device for differences in speeds (col. 9 lines 59-64). It would have been obvious to one ordinary skill in the art at the time the invention was made to expect central data processing unit to control the rotational speed of the spool (replacement or take-up) via any desired control loop (via closed-loop or open-loop), especially since Fulk et al. has disclosed its capability to control the spooling speed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Q Dehghan